

KIN M20: MOVEMENT ANALYSIS & CORRECTIVE EXERCISE

Originator

tcushman

Co-Contributor(s)
Name(s)

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College

Moorpark College

Discipline (CB01A)

KIN - Kinesiology

Course Number (CB01B)

M20

Course Title (CB02)

Movement Analysis & Corrective Exercise

Banner/Short Title

Movement Analysis

Credit Type

Credit

Start Term

Spring 2021

Catalog Course Description

Introduces advanced techniques in exercise science as they relate to postural analysis and movement impairments. Emphasizes an integrated approach to assessment and program design for correct exercise.

Additional Catalog Notes

Acts as preparation for industry-accepted corrective exercise credential.

Taxonomy of Programs (TOP) Code (CB03)

0835.20 - *Fitness Trainer

Course Credit Status (CB04)

D (Credit - Degree Applicable)

Course Transfer Status (CB05) (select one only)

B (Transferable to CSU only)

Course Basic Skills Status (CB08)

N - The Course is Not a Basic Skills Course

SAM Priority Code (CB09)

B - Advanced Occupational

Course Cooperative Work Experience Education Status (CB10)

N - Is Not Part of a Cooperative Work Experience Education Program

Course Classification Status (CB11)

Y - Credit Course

Educational Assistance Class Instruction (Approved Special Class) (CB13)

N - The Course is Not an Approved Special Class

Course Prior to Transfer Level (CB21)

Y - Not Applicable

Course Noncredit Category (CB22)

Y - Credit Course

Funding Agency Category (CB23)

B - Partially Developed Using Economic Development Funds

Course Program Status (CB24)

1 - Program Applicable

General Education Status (CB25)

Y - Not Applicable

Support Course Status (CB26)

N - Course is not a support course

Field trips

Will not be required

Grading method

(L) Letter Graded

Alternate grading methods

(O) Student Option- Letter/Pass

(P) Pass/No Pass Grading

Does this course require an instructional materials fee?

No

Repeatable for Credit

No

Is this course part of a family?

No

Units and Hours

Carnegie Unit Override

No

In-Class

Lecture

Minimum Contact/In-Class Lecture Hours

35

Maximum Contact/In-Class Lecture Hours

35

Activity

Laboratory

Minimum Contact/In-Class Laboratory Hours

52.5

Maximum Contact/In-Class Laboratory Hours

52.5

Total in-Class**Total in-Class****Total Minimum Contact/In-Class Hours**

87.5

Total Maximum Contact/In-Class Hours

87.5

Outside-of-Class**Internship/Cooperative Work Experience**

Paid

Unpaid

Total Outside-of-Class**Total Outside-of-Class****Minimum Outside-of-Class Hours**

70

Maximum Outside-of-Class Hours

70

Total Student Learning**Total Student Learning****Total Minimum Student Learning Hours**

157.5

Total Maximum Student Learning Hours

157.5

Minimum Units (CB07)

3

Maximum Units (CB06)

3

Advisories on Recommended Preparation

KIN M18

Requisite Justification**Requisite Type**

Recommended Preparation

Requisite

KIN M18

Requisite Description

Course not in a sequence

Level of Scrutiny/Justification

Content review

Student Learning Outcomes (CSLOs)

Upon satisfactory completion of the course, students will be able to:

- | | |
|---|---|
| 1 | navigate an integrated assessment protocol in order to identify human movement dysfunction. |
| 2 | create individualized corrective strategies. |

Course Objectives

Upon satisfactory completion of the course, students will be able to:

- | | |
|----|---|
| 1 | describe the corrective exercise continuum. |
| 2 | explain the importance that proper posture has on movement. |
| 3 | understand and explain common causes for movement dysfunction. |
| 4 | explain the components and function of a health appraisal. |
| 5 | discuss the implications for existing postural distortions. |
| 6 | conduct a variety of postural assessments. |
| 7 | identify potential muscle imbalances based on certain movement compensations. |
| 8 | design a corrective exercise strategy to improve movement impairments. |
| 9 | determine proper corrective exercise strategies based on the findings of an integrated assessment process. |
| 10 | differentiate between inhibitory, lengthening, activation, and integration flexibility techniques. |
| 11 | demonstrate self-myofascial release, static stretching, active-isolated stretching, and dynamic flexibility techniques. |

Course Content**Lecture/Course Content**

- **(25%)- Introduction to kinetic chain dysfunction**
 - describe the corrective exercise continuum
 - importance that proper posture has on movement.
 - implications for existing postural distortions
- **(35%)- Integrated client assessments**
 - components and function of a health appraisal
 - various postural assessments
 - identification of potential muscle imbalances based on certain movement compensations
- **(40%)- Corrective exercise program design**
 - design a corrective exercise strategy to improve movement impairments
 - corrective exercise strategies based on the findings of an integrated assessment process
 - inhibitory, lengthening, activation, and integration flexibility techniques
 - self-myofascial release, static stretching, active-isolated stretching, and dynamic flexibility techniques

Laboratory or Activity Content

- **(30%)- Postural Assessment**
- **(10%)- Joint Range of Motion Testing**
- **(20%)- Flexibility Techniques**
- **(10%)- Muscle Testing**
- **(30%)- Corrective Strength Exercises**

Methods of Evaluation

Which of these methods will students use to demonstrate proficiency in the subject matter of this course? (Check all that apply):

Problem solving exercises
Skills demonstrations

Methods of Evaluation may include, but are not limited to, the following typical classroom assessment techniques/required assignments (check as many as are deemed appropriate):

Classroom Discussion
Film/video productions
Group projects
Individual projects

Laboratory activities
 Laboratory reports
 Objective exams
 Projects
 Problem-solving exams
 Participation
 Quizzes
 Reports/Papers/Journals
 Reports/papers
 Research papers
 Skills demonstrations

Instructional Methodology

Specify the methods of instruction that may be employed in this course

Collaborative group work
 Class activities
 Class discussions
 Case studies
 Distance Education
 Demonstrations
 Guest speakers
 Lecture

Describe specific examples of the methods the instructor will use:

- Interaction lectures (videos, PowerPoint)
- Case studies
- Interactive worksheets

Representative Course Assignments

Writing Assignments

- project requiring the student to choose a person to select appropriate assessments, prescribe specific flexibility and strengthening modalities, providing sound scientific rationale for selections.
- case studies solving for a fictitious client and performing appropriate assessments and development of specific corrective exercise strategies.

Critical Thinking Assignments

- video analysis of a fictitious client, while applying common assessment protocols during filmed exercise movements and/or during activities of daily living.
- project requiring the student to choose an actual person to select appropriate assessments, prescribe specific flexibility and strengthening modalities, providing sound scientific rationale for selections.
- case studies requiring students to select the appropriate assessment method, identify the observable human movement impairments, and prescribe flexibility and strengthening techniques.

Reading Assignments

- Myofascial lines
- Clinical approach to postural assessment

Skills Demonstrations

- Measuring joint angles using goniometry
- Using a postural app to conduct assessment (Hudl)
- inhibitory, Lengthening, Activation, Integration exercise techniques

Outside Assignments

Representative Outside Assignments

- muscle testing assessments for overactive versus inhibited muscles using, if necessary, specialized assessment devices (i.e., goniometer).
- case studies requiring the need to solve for typical movement impairments that may lead to specific, identifiable movement impairment syndromes.

Articulation**Equivalent Courses at 4 year institutions**

| University | Course ID | Course Title | Units |
|---|-----------|--------------|-------|
| no comparable course available a CCC, CSU or UC | | | |

Equivalent Courses at other CCCs

| College | Course ID | Course Title | Units |
|----------------------|-----------|-------------------|-------|
| Orange Coast College | KIN A272 | Movement Analysis | 3 |

District General Education**A. Natural Sciences****B. Social and Behavioral Sciences****C. Humanities****D. Language and Rationality****E. Health and Physical Education/Kinesiology****F. Ethnic Studies/Gender Studies****Course is CSU transferable**

Yes

CSU Baccalaureate List effective term:

F2017

CSU GE-Breadth

Area A: English Language Communication and Critical Thinking

Area B: Scientific Inquiry and Quantitative Reasoning

Area C: Arts and Humanities

Area D: Social Sciences

Area E: Lifelong Learning and Self-Development

Area F: Ethnic Studies

CSU Graduation Requirement in U.S. History, Constitution and American Ideals:

IGETC

Area 1: English Communication

Area 2A: Mathematical Concepts & Quantitative Reasoning

Area 3: Arts and Humanities

Area 4: Social and Behavioral Sciences

Area 5: Physical and Biological Sciences

Area 6: Languages Other than English (LOTE)

Textbooks and Lab Manuals

Resource Type

Textbook

Classic Textbook

Yes

Description

Patel, Kesh. *Corrective Exercise: A Practical Approach*. Routledge, 2014.

Resource Type

Textbook

Classic Textbook

No

Description

National Academy of Sports Medicine. *NASM Essentials of Corrective Exercise Training*. 2nd ed., Jones and Bartlett Learning, 2020.

Library Resources

Assignments requiring library resources

Using the Library's print and online resources for research projects and case studies involving the study of typical movement impairments that may lead to specific, identifiable movement impairment syndromes.

Sufficient Library Resources exist

Yes

Example of Assignments Requiring Library Resources

- research common non-contact injuries in United States
- research types of non-contact injuries prevalent in various populations

Distance Education Addendum**Definitions****Distance Education Modalities**

- Hybrid (51%–99% online)
- Hybrid (1%–50% online)
- 100% online

Faculty Certifications

Faculty assigned to teach Hybrid or Fully Online sections of this course will receive training in how to satisfy the Federal and state regulations governing regular effective/substantive contact for distance education. The training will include common elements in the district-supported learning management system (LMS), online teaching methods, regular effective/substantive contact, and best practices.

Yes

Faculty assigned to teach Hybrid or Fully Online sections of this course will meet with the EAC Alternate Media Specialist to ensure that the course content meets the required Federal and state accessibility standards for access by students with disabilities. Common areas for discussion include accessibility of PDF files, images, captioning of videos, Power Point presentations, math and scientific notation, and ensuring the use of style mark-up in Word documents.

Yes

Regular Effective/Substantive Contact**Hybrid (1%–50% online) Modality:**

| Method of Instruction | Document typical activities or assignments for each method of instruction |
|--|--|
| Asynchronous Dialog (e.g., discussion board) | -discussions analyzing movement dysfunctions -email for questions and answers |
| Other DE (e.g., recorded lectures) | -narrated lectures -embedded videos |

Hybrid (51%–99% online) Modality:

| Method of Instruction | Document typical activities or assignments for each method of instruction |
|--|--|
| Asynchronous Dialog (e.g., discussion board) | -discussions analyzing movement dysfunctions -email for questions and answers |
| Other DE (e.g., recorded lectures) | -narrated lectures -embedded videos |

100% online Modality:

| Method of Instruction | Document typical activities or assignments for each method of instruction |
|--|--|
| Asynchronous Dialog (e.g., discussion board) | -discussions analyzing movement dysfunctions -email for questions and answers |
| Other DE (e.g., recorded lectures) | -narrated lectures -embedded videos |

Examinations**Hybrid (1%–50% online) Modality**

Online

Hybrid (51%–99% online) Modality

Online

Primary Minimum Qualification

PHYSICAL EDUCATION

Additional local certifications required

Industry-accepted corrective exercise credential

Review and Approval Dates

Department Chair

10/07/2020

Dean

10/15/2020

Technical Review

10/30/2020

Curriculum Committee

11/3/2020

DTRW-I

MM/DD/YYYY

Curriculum Committee

MM/DD/YYYY

Board

MM/DD/YYYY

CCCCO

11/19/2020

Control Number

CCC000582946

DOE/accreditation approval date

MM/DD/YYYY